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July 1, 2003

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

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JUL 02 2003

Technology Center 2100

Re: U.S. Utility Patent Application
Appl. No. 09/987,193; Filed: November 13, 2001
For: **Method and Apparatus for a Parallel Correlator
and Applications Thereof**

Inventors: Rawlins *et al.*
Our Ref: 1744.1200001

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Supplemental Information Disclosure Statement;
2. Four (4) sheets of Form PTO-1449 listing fifty-one (51) reference documents;
3. One (1) copy of each referenced document; and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
July 1, 2003
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Patrick E. Garrett
Attorney for Applicant
Registration No. 39,987

PEG:mlb
Enclosures

SKGF_DC1:151186.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Rawlins *et al.*

Appl. No. 09/987,193

Filed: November 13, 2001

For: **Method and Apparatus for a
Parallel Correlator and
Applications Thereof**

Art Unit: 2124

Examiner: Malzahn, David H.

Atty. Docket: 1744.1200001

Supplemental Information Disclosure Statement

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

JUL 02 2003

Technology Center 2100

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Information Disclosure Statement filed on September 23, 2002 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Document AB50 was cited by in an Office Action in co-pending U.S. Patent Application Serial No. 09/376,509, filed August 18, 1999, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter.

Documents AC50-AE50, AG50, AI50 and AC51 were cited in an Office Action in co-pending U.S. Patent Appl. No. 09/476,330, filed January 3, 2000, entitled, "Multi-Mode, Multi-Band Communication System," directed to related subject matter.

Document AF50 was cited in an Office Action in co-pending U.S. Patent Appl. No. 09/567,963, filed May 10, 2000, entitled, "Frequency Synthesizer Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AH50, AA51 and AB51 were cited in an Office Action in co-pending U.S. Patent Appl. No. 09/526,041, filed March 14, 2000, entitled, "DC Offset, Re-radiation, and I/Q Solutions Using Universal Frequency Translation Technology," directed to related subject matter.

Document AE51 was cited in an Office Action in co-pending U.S. Patent Application Serial No. 09/476,092, filed January 3, 2000, entitled "Analog Zero IF FM Decoder and Embodiments Thereof, Such as the Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,600,680 and 5,606,731, which have already been cited in the present application in the Supplemental Information Disclosure Statement of September 23, 2002.

Documents AF51, AG51 and AF52 are co-owned patents which are directed to related subject matter.

Documents AH51 and AN58-AP58 were cited in an Office Action in co-pending U.S. Patent Appl. No. 09/567,977, filed May 10, 2000, entitled, "Optical Down-converter Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AI51, AA52 and AB52 were cited in an International Search Report in PCT Appl. No. PCT/US02/35861, filed November 8, 2002, entitled, "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Documents AC52, AD52, AK22-AM22 and AQ58 were cited in an International Search Report in PCT Appl. No. PCT/US01/15555, filed May 16, 2001, entitled, "Apparatus, System, and Method for Down-Converting and Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited in said Search Report were U.S. Patent Nos. 4,888,557, 5,454,007, 5,640,698 and 5,705,949, and PCT Publication No. WO 96/02977, which have already been cited in the present application in the Information Disclosure Statement of September 23, 2002.

Documents AE52 and AJ23 were cited in an Invitation to Pay Additional Fees in counterpart PCT Appl. No. PCT/US01/43077, filed November 14, 2001, entitled "Method and Apparatus for a Parallel Correlator and Applications Thereof," directed to related subject matter.

Documents AG52-AI52 and AA53 were cited in an Office Action in co-pending U.S. Patent Application No. 09/986,764, filed November 9, 2001, entitled "Method and

Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter.

Documents AK20, AL20, AJ21, AK21, AL21, AP56 and AQ56 were cited in an International Search Report in counterpart PCT Appl. No. PCT/US01/12086, filed April 13, 2001, entitled, "Frequency Converter," directed to related subject matter. Also cited in said Search Report was U.S. Patent No. 5,844,449, which has already been cited in the present application in the Information Disclosure Statement of September 23, 2002.

Documents AM21 and AJ22 were cited in an Official Notice of Rejection in co-pending Japanese Patent Application No. 2000-577,765, filed June 21, 2000, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter. Also cited in said Notice of Rejection were Japanese Patent Publication Nos. 56-114451, 8-139524 and 8-32556, which have already been cited in the present application in the Information Disclosure Statement of September 23, 2002.

The other documents in the PTO-1449 do not fall within the above categories.

It is noted that some of these documents could be classified in more than one of the above categories.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication

was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.

- 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
 - a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
 - b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
 - c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).
- 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our Check No. _____ in the

amount of \$ _____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

- a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.

6. Concise explanations of the relevance of the non-English language documents AK20, AL20, AK21, AM21 and AJ22 appear below:

Document AK20 (DE 196 27 640 A1) appears to describe a mixer. Document AK20 is a counterpart German application of U.S. Patent No. 5,680,078, which has already been cited in the present application in the Information Disclosure Statement of September 23, 2002.

Document AL20 (EP 0 087 336 A1) appears to describe a transistorized mixer for microwave transmitters. The granted version of document AL20 is cited as document AM20 (EP 0 087 336 B1) and contains an English-language version of the claims.

Document AK21 (FR 2 669 787 A1) appears to describe a symmetrical super high frequency mixer. A copy of the English-language abstract of document AK21 is enclosed as document AR56 on the attached PTO-1449.

Document AM21 (JP 61-30821) appears to describe a squelch device. A copy of the English-language abstract of document AM21 is enclosed as document AP57 on the attached PTO-1449.

Document AJ22 (JP 5-327356) appears to describe a frequency converter. A copy of the English-language abstract of document AJ22 is enclosed as document AQ57 on the attached PTO-1449.

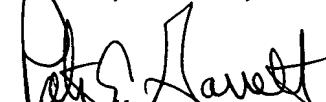
7. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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FORM PTO-1449

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1744.1200001APPLICATION NO
09/987,193APPLICANT
Rawlins et al.FILING DATE
November 13, 2001GROUP
2124

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U. S. PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AB50		3,246,084	04/1966	Kryter			
AC50		3,702,440	11/1972	Moore			
AD50		3,767,984	10/1973	Shinoda et al.			
AE50		3,852,530	12/1974	Shen			
AF50		4,220,977	09/1980	Yamanaka			
AG50		5,016,242	05/1991	Tang			
AH50		5,937,013	08/1999	Lam et al.			
AI50		6,014,551	01/2000	Pesola et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AK20		DE 196 27 640 A1	01/1997	DE	H03D	7/12	No
AL20		EP 0 087 336 A1	08/1983	EP	H03D	7/12	No
AM20		EP 0 087 336 B1	07/1986	EP	H03D	7/12	No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

			RECEIVED JUL 02 2003
			Technology Center 2100
	AP	56	Razavi, B., "A 900-MHz/1.8-Ghz CMOS Transmitter for Dual-Band Applications," <i>Symposium on VLSI Circuits Digest of Technical Papers</i> , IEEE, pp. 128-131 (1998).
	AQ	56	Ritter, G.M., "SDA, A New Solution for Transceivers," <i>16th European Microwave Conference</i> , Microwave Exhibitions and Publishers, pp. 729-733 (September 8, 1986).
	AR	56	DIALOG File 351 (Derwent WPI) English Language Patent Abstract for FR 2 669 787, 1 page (May 29, 1992- Date of publication of application).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
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2124

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PTAB & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA51	6,073,001	06/2000	Sokoler			
	AB51	6,085,073	07/2000	Palermo et al.			
	AC51	6,400,963 B1	06/2002	Glöckler et al.			05/21/1999
	AD51	6,230,000 B1	05/2001	Tayloe	RECEIVED		
	AE51	5,483,695	01/1996	Pardoen	JUL 12 2003		
	AF51	6,542,722 B1	04/2003	Sorrells et al.			04/16/1999
	AG51	6,560,301 B1	05/2003	Cook et al.			04/16/1999
	AH51	6,098,046	08/2000	Cooper et al.	Technology Center 2100		
	AI51	5,410,326	04/1995	Goldstein			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ21	EP 0 789 449 A2	08/1997	EP	H03D	7/12	N/A
	AK21	FR 2 669 787 A1	05/1992	FR	H03D	7/14	No
	AL21	GB 2 324 919 A	11/1998	GB	H03D	7/18	N/A
	AM21	JP 61-30821	02/1986	JP	H04B	1/10	No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>57</u>	Akos, D.M. et al., "Direct Bandpass Sampling of Multiple Distinct RF Signals," <i>IEEE Transactions on Communications</i> , IEEE, Vol. 47, No. 7, pp. 983-988 (July 1999).
	AO	<u>57</u>	Patel, M. et al., "Bandpass Sampling for Software Radio Receivers, and the Effect of Oversampling on Aperture Jitter," <i>VTC 2002</i> , IEEE, pp. 1901-1905 (2002).
	AP	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 61-030821, from http://www1.ipdl.jpo.go.jp , 1 Page (February 13, 1986- Date of publication of application).
	AQ	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 05-327356, from http://www1.ipdl.jpo.go.jp , 1 Page (December 10, 1993 - Date of publication of application).
	AR	<u>57</u>	Tayloe, D., "A Low-noise, High-performance Zero IF Quadrature Detector/Preamplifier," <i>RF Design</i> , Primedia Business Magazines & Media, Inc., pp. 58, 60, 62 and 69 (March 2003).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

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A T E R T A M B O R E

T R A D E M A R K O F F I C E

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	TRADE DATE
	AA52	5,956,025	09/1999	Goulden et al.			
	AB52	6,127,941	10/2000	Van Ryzin			
	AC52	5,564,097	10/1996	Swanke			
	AD52	5,898,912	04/1999	Heck et al.			
	AE52	4,660,164	04/1987	Leibowitz	RECEIVED		
	AF52	6,580,902 B1	06/2003	Sorrells et al.	JUL 02 2003		04/16/1999
	AG52	4,857,928	08/1989	Gailus et al.			
	AH52	5,389,839	02/1995	Heck			
	AI52	5,471,665	11/1995	Pace et al.	Technology Center 2100		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ22	JP 5-327356	12/1993	JP	H03D	7/00	No
	AK22	EP 0 643 477 A2 & A3	03/1995	EP	H03D	7/16	N/A
	AL22	EP 0 877 476 A1	11/1998	EP	H03D	7/16	N/A
	AM22	EP 0 977 351 A1	02/2000	EP	H03D	7/16	N/A

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	58	Dines, J.A.B., "Smart Pixel Optoelectronic Receiver Based on a Charge Sensitive Amplifier Design," <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , IEEE, Vol. 2, No. 1, pp. 117-120 (April 1996).
	AO	58	Simoni, A. et al., "A Digital Camera for Machine Vision," <i>20th International Conference on Industrial Electronics, Control and Instrumentation</i> , IEEE, pp. 879-883 (September 1994).
	AP	58	Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," <i>Electronics & Communication Engineering Journal</i> , IEEE, pp. 37-47 (February 1998).
	AQ	58	Rudell, J.C. et al., "A 1.9-Ghz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone Applications," <i>IEEE Journal of Solid-State Circuits</i> , IEEE, Vol. 32, No. 12, pp. 2071-2088 (December 1997).

EXAMINER

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FORM PTO-1449 <u>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>				ATTY. DOCKET NO. 1744.1200001	APPLICATION NO. 09/987,193		
				APPLICANT Rawlins et al.	FILING DATE November 13, 2001	GROUP 2124	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA53	6,327,313 B1	12/2001	Traylor et al.			12/29/1999
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JUL 01 2003							
Technology Center 2100							
FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ23	WO 00/31659 A1	06/2000	PCT			
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
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